
60.60. TREES AND VEGETATION. [ORD 4224; August 2002]

60.60.05. Purpose

Healthy trees and urban forests provide a variety of natural resource and community benefits for the City of Beaverton. Primary among those benefits is the aesthetic contribution to the increasingly urban landscape. Tree resource protection focuses on the aesthetic benefits of the resource. In conjunction with processes set forth in Section 40.90 of this Code, this section is intended to help ~~regulate-manage~~ changes ~~regarding-to~~ the City's urban forest by establishing regulations and standards for the protection, pruning, removal, replacement, and mitigation for removal of Protected Trees (Ssignificant Individual Ttrees, and grove, hHistoric tTrees, and trees within a Significant Natural Resource Area (SNRA) or Significant Grove), lLandscape tTrees, -street-tree, and eCommunity tTrees.

60.60.07 Enforcement.

A person responsible for causing the removal or pruning of a Protected significant tTree resource not in accordance with the standards set forth in this section ~~and the City's adopted Tree Planting and Maintenance Policy (Resolution 3391)~~ unless exempt, shall be subject to the payment of a mitigation fee, and is otherwise required to mitigate the removal as set forth in the mitigation standards of this section. Enforcement regulations are established by the City Code (Chapter 9).

1. Fine for a Violation.

The fine for causing the removal or pruning of a tree without the appropriate permits/review shall be based on the Community Development Department Development Services fee schedule and be deposited in the City's Tree Mitigation Fund.

60.60.10. Types of Trees and Vegetation Regulated

Actions regarding trees and vegetation addressed by this section shall be performed in accordance with the regulations established herein and in Section 40.90 of this Code. The City finds that the following types of trees and vegetation are worthy of special ~~regulation~~protection:

- 1. Significant Individual Trees ~~and Groves~~.**
- 2. Historic Tree.**
- 3. Trees s within ~~a~~ Significant Natural Resource Areas s.**

4. Trees within Significant Groves.

5. Landscape Trees.

~~5. Street Tree.~~

6. Community Trees.

7. Mitigation Trees.

60.60.15 Pruning, Removal, and Preservation Standards

1. Pruning Standards

- A. It shall be unlawful for any person to remove or prune to remove a tree's canopy or disturb the root zone of any ~~significant individual tree, and grove, historic tree, tree within a SNRA, Protected Tree and Landscape~~ Tree, and street tree, except in accordance with the provisions of this Code.
- B. All pruning of ~~a significant individual tree, and grove, historic tree, tree within a SNRA, Landscape~~ Trees and Protected Trees, and street tree shall ~~be~~ done in accordance with the standards set forth in this section and the City's adopted Tree Planting and Maintenance Policy, also known as Resolution 3391.

2. Removal and Preservation Standards

- A. All removal ~~and planting, including replacement or mitigation planting,~~ of protected trees shall be done in accordance with the standards set forth in this section ~~and the City's adopted Tree Planting and Maintenance Policy (Resolution 3391).~~
- B. Removal of ~~a significant individual tree, and significant grove, Landscape~~ Trees and Protected Trees, and street tree shall ~~require mitigation, which may include tree replacement or other mitigation measures~~ be shall be mitigated, as set forth in ~~this~~ section 60.60.25.

C. For ~~Significant Natural Resource Areas (SNRA)~~SNRAs and ~~s~~Significant ~~g~~Groves, the following additional standards shall apply:

1. The minimum DBH of non-exempt surveyed trees that must be preserved on a site is as follows:
 - a) Fifteen percent (15%) of the DBH of non-exempt surveyed trees found on a project site; development located within any Multiple Use zoning district.
 - b) Twenty five percent (25%) of the DBH of non-exempt surveyed trees found on a project site; development located within any Residential, Commercial, or Industrial zoning district.
2. DBH to be retained shall be preserved in cohesive areas, termed Preservation Areas, when development is proposed in SNRAs or Significant Groves.
- ~~1. A minimum of 5% of the trees within a SNRA or significant grove area shall be preserved. The area shall be measured by the area of the tree canopy at maturity. SNRA and significant grove preservation shall include preservation of understory vegetation, as well as trees.~~
- ~~23. Native understory vegetation and trees shall be preserved in Preservation Areas. Significant groves shall be preserved in rounded clusters rather than in linear strips.~~
- ~~34. Preservation Areas, conditioned for protection through the Development Review process, shall be preserved in clusters that are natural in appearance rather than in linear strips. Preservation Areas should connect with adjoining portions of the Significant Grove or SNRA on other sites. Significant groves shall provide connectivity with adjoining forested areas.~~
- ~~45. Preservation Areas, conditioned for protection through the Development Review process, shall be set aside in tracts and recorded with a deed restriction with Washington County, unless otherwise approved by the City. The deed restriction shall prohibit future~~

development and specify the conditions for maintenance if the property is not dedicated to a public agency.

6. Native species shall be retained to the extent possible. ~~Native species include, but are not limited to: Grand Fir, Douglas fir, Western Hemlock, Pacific Yew, Western Red Cedar, Bigleaf Maple, Oregon White Oak, Oregon Ash, Red Alder, Western Flowering Dogwood, Ponderosa Pine, and Black Cottonwood.~~

Non-native tree species may also be retained for aesthetic, unique condition, size, and wildlife habitat purposes.

~~D. To assist in the preservation of a tree or grove, the following shall not occur within the protected root zone of each tree at any time without prior approval from the City:~~

- ~~1. Construction or placement of new buildings.~~
- ~~2. Grade change or cut and fill.~~
- ~~3. Construction or placement of new impervious surfaces.~~
- ~~4. Trenching for utilities, irrigation, or drainage.~~
- ~~5. Staging or storage of any kind.~~

60.60.20. Tree Protection Standards During Development

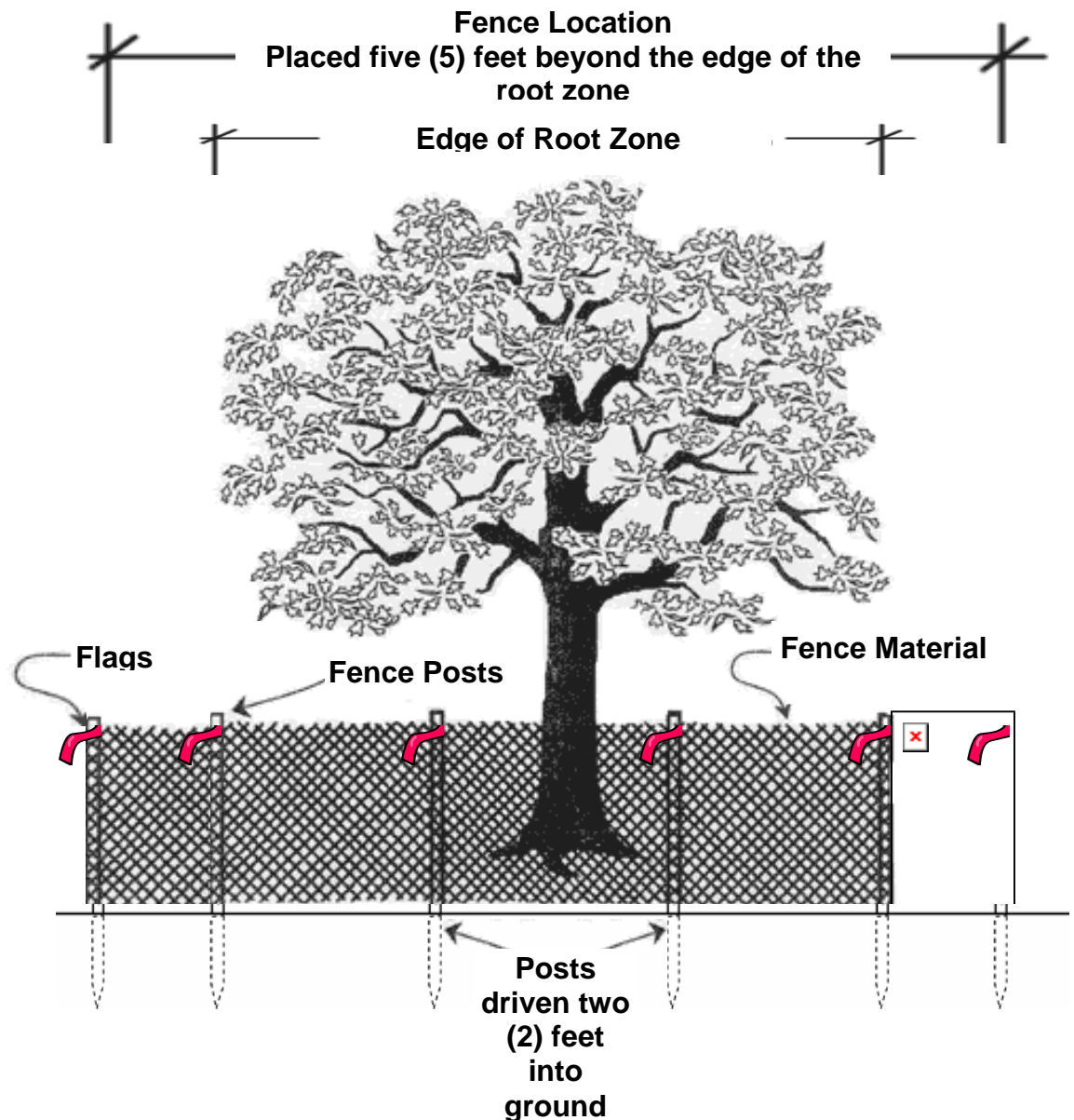
1. Trees classified as ~~Ssignificant individual Ttree, and significant Grove, historic tree, tree within a SNRA, and Llandscape Ttree, and street-tree~~protected trees under this Code shall be protected during development in compliance with the following:

A. A construction fence must be placed around a tree or grove ~~at least~~ at beyond the edge of the root zone. The fence shall be placed before physical development ~~construction~~ starts and remain in place until ~~construction~~ physical development is complete. The fence shall meet the following:

1. The fence shall be a four foot (4') tall orange plastic or snow fence, secured to six foot (6') tall metal posts, driven two feet (2') into the ground. Heavy 12 gauge ~~12~~ wire shall be strung between each post and attached to the top and midpoint of each post. Colored tree flagging

indicating that this area is a tree protection zone is to be placed every five (5) linear feet on the fence to alert construction crews of the sensitive nature of the area.

2. Other City approved protection devices—measures that provide equal or greater protection may be permitted, and may be required as a condition of Tree Plan approval.



- B. Within the protected root zone of each tree, the following development shall not be permitted:

1. Construction or placement of nNew buildings.
2. Grade change or cut and fill, ~~during or after construction,~~
except where hand excavation is approved with the
submittal of an arborist's report, as part of the Tree Plan
approval.
3. New impervious surfaces.
4. Trenching for utilities, irrigation, or drainage.
5. Staging or storage of ~~materials and equipment during~~
~~construction~~any kind.
6. Vehicle maneuvering or parking ~~during construction.~~

60.60.25. Mitigation ~~Standards~~Requirements

1. The following standards shall apply to mitigation for the removal of ~~a~~
~~s~~Significant ~~i~~Individual ~~t~~Trees or trees within Significant ~~g~~Groves or
SNRAs.
 - A. All mitigation tree planting shall take place in conformance with
accepted arboricultural practices ~~and the City's Tree Planting~~
~~and Maintenance Policy (Resolution 3391)~~ and shall be spaced a
minimum of ten (10) feet apart.
 - B. As of [fill in effective date of ordinance], all trees planted for tree
removal mitigation shall be maintained in accordance with the
approved mitigation plan. Monitoring of mitigation planting
shall be the ongoing responsibility of the property owner where
mitigation trees are located, unless otherwise approved through
Development Review. Trees that die shall be replaced in
accordance with the tree replacement standards of this section.
 - C. As of [fill in effective date of ordinance], all trees planted for
tree removal mitigation shall be set aside in a separate tract or
designated as "Mitigation" and recorded with a deed restriction
identifying the trees as Mitigation trees that are subject to these
same standards in the future.
 - D. Each tree planted for tree removal mitigation shall include a
performance security, equal to 110 percent of the cost of the
landscaping, filed with the City for a period of three years to
ensure establishment of the mitigation planting.

E. Street trees shall not be counted as providing mitigation of a SNRA or Significant Grove.

H. Moving trees within the project site is not subject to mitigation, but is subject to a performance security so that the trees may be replaced if the moved tree is dead or dying (defined in this provision as greater than 20% dead limbs) in the new location at the end of three years.

2. Mitigation for the removal of trees from Significant Groves or SNRAs shall occur in the following manner:-

A. Calculate the total DBH of the trees to be removed. Denote both deciduous and coniferous trees in separate tables; however, both tables will result in the sum total of the trees to be removed.

B. If the total DBH of trees to be removed is less than or equal to 50% of the total DBH of surveyed trees on the site, then no mitigation is required for the trees to be removed.

C. If the total DBH of trees to be removed is greater than 50% of the total DBH of surveyed trees on site, then mitigation is required for the amount of DBH to be removed that exceeds 50% of the total DBH of surveyed trees on site.

For example, if 75 inches is the total amount of DBH to be removed from a site and 60 inches of DBH represents 50% of the total surveyed DBH, then 15 inches of DBH is the total required amount of mitigation.

3. In addition to the requirements listed in Section 60.60.25.1 Mitigation Requirements, the following mitigation requirements shall apply for the removal of trees from Significant Groves or SNRAs.

A. Dead or dying trees within a Significant Grove or SNRA shall be fallen when required for safety. Such tree falling shall not require mitigation. However, the fallen log shall remain in the Significant Grove or SNRA, to serve as habitat for wildlife, unless the tree has been diagnosed with a disease and the log must be removed from the area to protect the remaining trees.

B. All trees planted for mitigation must meet the following minimum requirements:

- i. Deciduous trees shall be replaced with native deciduous trees that are no less than two caliper inches (2") in diameter
- ii. Coniferous trees shall be replaced with native coniferous trees that are no less than three feet (3') in height and no more than four feet (4') in height. A three foot (3') mitigation tree shall equate to 2" DBH and four foot (4') mitigation tree will equate to 3" DBH.
- iii. The total linear DBH measurement of the trees to be removed shall be mitigated with the necessary number of trees at least two caliper inches (2") in diameter.

4. Significant Grove or SNRA On-Site Mitigation, 1:2 Planting Ratio.

- A. For tree removal proposals which remove more than 50% and up to and including 75% of the surveyed non-exempt DBH in Residential, Commercial, or Industrial zones, if all mitigation tree planting is to occur on-site, the ratio for planting shall be on a 1:2 basis.

For example, if 20 inches of DBH is the total amount of required mitigation, if all the mitigation planting occurs on the site where the removal is to occur, then only 10 inches of DBH is required to be planted.

- B. For tree removal proposals which remove more than 50% and up to and including 85% of the surveyed non-exempt DBH in Multiple Use zones, if all mitigation tree planting is to occur on-site, the ratio for planting shall be on a 1:2 basis.

For example, if 20 inches DBH is the total amount of required mitigation, if all the mitigation planting occurs on the site where the removal is to occur, then only 10 inches of DBH is required to be planted.

5. Significant Grove or SNRA Off-Site Mitigation, 1:1 Planting Ratio.

- A. For tree removal proposals which remove more than 50% and up to and including 75% of the surveyed non-exempt DBH in Residential, Commercial, or Industrial zones or which remove more than 50% and up to and including 85% of the surveyed non-exempt DBH in Multiple Use zones, if mitigation tree planting is to occur off-site, the ratio for planting shall be on a 1:1 basis.

B. For tree removal proposals which remove more than 75% and up to and including 100% of the surveyed non-exempt DBH in Residential, Commercial, or Industrial zones, all of the required mitigation tree planting shall be on a 1:1 basis whether planted on-site or off-site. This requirement does not supersede or otherwise nullify the on-site mitigation planting provisions of 60.60.xx.x above.

C. For tree removal proposals which remove more than 85% and up to and including 100% of the surveyed non-exempt DBH in Multiple Use zones, all of the required mitigation tree planting shall be on a 1:1 basis whether planted on-site or off-site. This requirement does not supersede or otherwise nullify the on-site mitigation planting provisions of 60.60.xx.x above.

6. In-Lieu Fee

If the total caliper inch on-site- or off-site tree planting mitigation does not equal the DBH inch removal or if no tree planting mitigation is proposed, the remaining or total caliper inch tree planting mitigation shall be provided as a fee in-lieu payment. The in-lieu fee shall be specified in the Community Development In-Lieu Fee schedule. Fee revenues shall be deposited in the City's Tree Mitigation Fund.

The following two tables illustrate how required mitigation will be calculated:

Mitigation Example for Mixed Use Zones – SAMPLE SITE*

<u>DBH of Surveyed Trees</u>	<u>1318.00</u>
<u>DBH Proposed for Removal (MAXIMUM removal allowed is 85% Surveyed Tree DBH)</u>	<u>1120.00</u>
<u>Mitigation Threshold (50% Surveyed Tree DBH)</u>	<u>659.00</u>
<u>DBH to be Mitigated (85% DBH Removal – 50% DBH Threshold = 25% Surveyed DBH)</u>	<u>461.00</u>
<u>On Site Mitigation (50% of the DBH to be mitigated)</u>	<u>230.50</u>
<u>Off Site OR Partial Off Site Mitigation (100% of the DBH to be mitigated)</u>	<u>461.00</u>

Please note: This "Sample Site" is **fictional and is only meant to be a representation of how the regulations of Section 60.60 Trees and Vegetation could be applied to a site.*

Mitigation Example for All Other Zones – SITE SAMPLE*

<u>DBH of Surveyed Trees</u>	<u>1318.00</u>
<u>DBH Proposed for Removal (MAXIMUM removal allowed is 75% Surveyed Tree DBH)</u>	<u>988.00</u>
<u>Mitigation Threshold (50% Surveyed Tree DBH)</u>	<u>659.00</u>
<u>DBH to be Mitigated (75% DBH Removal – 50% DBH Threshold = 25% Surveyed DBH)</u>	<u>329.00</u>
<u>On Site Mitigation (50% of the DBH to be mitigated)</u>	<u>164.50</u>
<u>Off Site OR Partial Off Site Mitigation (100% of the DBH to be mitigated)</u>	<u>329.00</u>

Please note: This "Sample Site" is **fictional and is only meant to be a representation of how the regulations of Section 60.60 Trees and Vegetation could be applied to a site.*

7.. In addition to the standards in Mitigation Standards 1, the following standards shall apply to mitigation for the removal of a Significant Individual Tree:

- A. A replacement tree shall be a substantially similar species or a tree approved by the City considering site characteristics.
- B. Mitigation for the removal of a **Significant Individual Trees** shall be the required replacement of each tree on based on the total linear DBH measurement. Replacement of trees shall be as follows:

**Replacement Table for
Significant Deciduous Trees**

<u>Caliper-inches removed</u>	<u>Minimum total caliper-inches of replacement trees</u>
<u>6-12"</u>	<u>4"</u>
<u>13-18"</u>	<u>6"</u>
<u>19-24"</u>	<u>8"</u>
<u>Over 25"</u>	<u>9"</u>

*Minimum replacement tree size is 2 caliper-inches for deciduous trees.

**Replacement Table for
Significant Coniferous Trees**

<u>Caliper-inches removed</u>	<u>Minimum number of replacement Trees</u>
<u>6-12"</u>	<u>1</u>
<u>13-24"</u>	<u>2</u>
<u>Over 25"</u>	<u>3</u>

Minimum replacement tree size is 3-feet minimum to 4-feet maximum height for coniferous trees.

- A. ~~Mitigation for the removal of a significant tree or grove shall be the required replacement of each tree on a one to one basis according to total linear DBH measurement. Replacement of trees shall be as follows:~~
- ~~1. Calculate the sum of the cumulative DBH measurement of the tree to be removed.~~
 - ~~2. The total linear DBH measurement of the tree to be removed shall be replaced with a tree that is at least two caliper inches (2") in diameter unless otherwise approved by the City. The total caliper inches of the replacement tree shall be at least equal to the sum total of the linear DBH measurement of the removed tree.~~

~~3. If the total caliper inch replacement does not equal the DBH inch removal, the remaining caliper inch replacement will be provided in lieu. The in-lieu fee shall be specified in the Community Development Department fee schedule and be deposited in the City's Tree Mitigation Fund.~~

~~B. Mitigation may be satisfied by one, or a combination of more than one, of the following options:~~

~~1. Planting of trees on the site where tree or grove removal is proposed;~~

~~2. Planting of trees off the site at a location or locations to be determined by the City; or~~

~~3. A fee paid in lieu of tree planting and deposited in the City's Tree Mitigation Fund for future natural resource mitigation efforts. The assessment of tree mitigation shall be determined by the caliper size of the tree removed.~~

~~C. Any tree required for mitigation shall be a similar species or a tree approved by the City considering site characteristics with a preference given to native species, as listed in Section 60.60.15 of this Code.~~

~~D. If a mitigation tree of the species of the tree removed or damaged is not reasonably available, the City may allow replacement with a different species with equivalent natural resource value.~~

~~E. All mitigation tree planting shall take place in conformance with accepted arboricultural practices and the City's Tree Planting and Maintenance Policy.~~

~~F. All trees planted for mitigation must have a minimum caliper of two inches (2") except where other standards are required through development review.~~

~~G. All trees planted for tree removal mitigation shall be maintained in accordance with the approved mitigation plan. Monitoring of mitigation planting shall be the ongoing responsibility of the property owner. Trees that die shall be replaced.~~

24. The following standards apply to the replacement of a ~~Landscape~~ ~~Tree or street tree~~:

- A. A replacement tree shall be a substantially similar species or a tree approved by the City considering site characteristics.
- B. If a replacement tree of the species of the tree removed or damaged is not reasonably available, the City may allow replacement with a different species with equivalent natural resource value.
- C. Replacement of a ~~Landscape~~ ~~Tree or street tree~~ shall be based on total linear DBH calculations at a one-to-one ratio depending upon the capacity of the site to accommodate replacement tree or unless otherwise specified through development review. Replacement of tree on a one-to-one basis shall be as follows:
 - 1. Calculate the sum of the total linear DBH measurement of the tree to be removed.
 - 2. The total linear DBH measurement of the tree to be removed shall be replaced with tree at least 1.5 caliper inches in diameter. The total caliper inches of the replacement tree shall be at least equal to the sum total of the linear DBH measurement of the removed tree.
